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Natural Resources, Agriculture, and  
Environmental Quality Appropriations Subcommittee

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# Utah Dam Safety Program



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# Utah Dam Safety Program



# History of National Dam Safety

## South Fork Dam, Johnstown Flood

- Johnstown, PA
- Failed May 31, 1889
- 2209 Killed



# History of National Dam Safety

## Saint Francis Dam

- Los Angeles, CA
- Failed March 1928
- 450+ Killed



# History of National Dam Safety

## Teton Dam

- Sugar City, ID
- Failed June 5, 1976
- 11 Killed



# History of State Dam Safety

## Little Deer Creek

- Tributary to the Duchesne River
- Failed June 16, 1963
- 1 Killed



# History of State Dam Safety

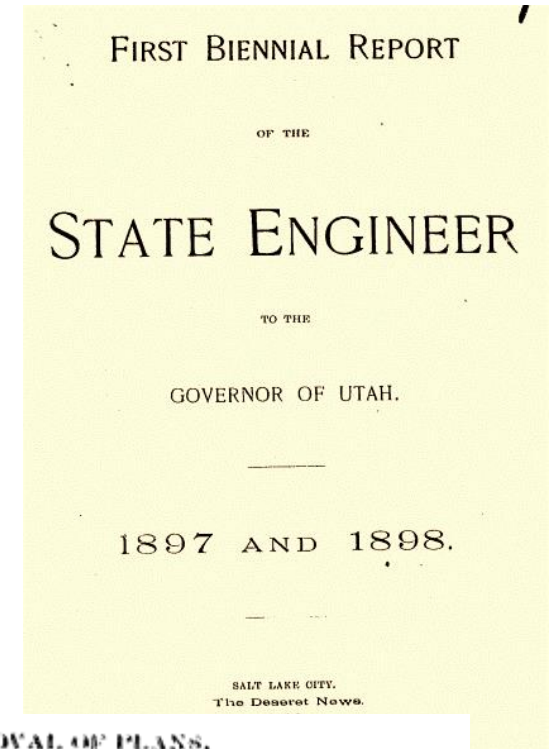
## Quail Creek Dike

- Near Saint George, UT
- Failed January 1, 1989
- No fatalities



# Authority of the State Engineer

- “...all plans of dams or dikes shall be approved by the State Engineer.” - 1897
- “The State Engineer has the authority to regulate the safety of dams for the purpose of protecting public safety” 73-5a-101
- “No person may construct, enlarge, repair, alter, remove, or abandon any dam or reservoir without obtaining written approval from the State Engineer.” 73-5a-201



## APPROVAL OF PLANS.

Section 2153 provides that all plans of dams or dikes, when the same are more than ten feet in height, shall be approved by the State Engineer. No provision is made, however, to enable him to see that the plans and specifications are carefully observed. He could not, therefore, be held responsible in any way for any failures. Still, this section of the law has been of service to the people, as it has given them the benefit of consulting engineering advice free of charge. State supervision of the construction of dams would be too expensive and too serious a burden upon the State.



# Responsibilities & Liabilities

- State Owned Dams
  - Division of Wildlife Dams
    - 3 high hazard
  - UDOT Detention Basins
    - Storm water
    - Small volumes
- Owners are responsible for:
  - Legal Duties
  - Obligations
  - Liabilities



# Creating & Maintaining Infrastructure

- Approximately 6500 dams on the state inventory
- Inspect over 300 operating dams every year
- Participate in design and construction of new dams
- Involved in rehabilitation of dams that have exceeded design life



# Prioritizing High Hazard Dams for Rehabilitation

- Condition Evaluation
  - Outlet
  - Spillway
  - Slope Stability
  - Seismic Stability
  - Seepage
  - Population at Risk
- Co-operative Funding
  - NRCS
  - Owner Provided



# Impacts to Funding

- Development Leads to Increased Hazard (Hazard Creep)
- Development of New Standards
- Inflation & Increasing Costs
- Change in Ownership



# Priority dams listing

- 223 high hazard dams
- 51 new dams
- 172 on priority list
- 22 meet minimum
- 45 construction complete
- 24 current construction
- 81 remaining



# Thank you

Contact information:

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